

ABSTRACT OF THE DISCLOSURE

An IP address assignment system and its process method includes a subscriber terminal, a subscriber exchange and a remote access server, and an authentication server and a resource control server for controlling IP addresses are connected to an IP network. The remote access server is connected to the subscriber exchange by an NNI which contains a trunk line such as an SDH and carries out a direct signal processing with an SS7 network. The remote access server cooperates with the resource control server to improve efficiency of line resource and IP address assignment. The resource control server controls the IP addresses to be assigned to the subscriber terminals. When there is no IP address to be assigned to the subscriber terminal, the subscriber terminal disconnects the calling, and hence a useless calling cost charge to the subscriber terminal can be avoided.